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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,507	02/22/2002	Jae Chang Jung	00939B-068710US	1185
20350	7590	01/23/2006	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			LEE, SIN J	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/080,507

Applicant(s)

JUNG ET AL.

Examiner

Sin J. Lee

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-19 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☒ Claim(s) 1,3,5-19 and 22-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/465,111.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicants canceled claims 20 and 21.
2. It is to be noted that although effective filing date for present claims 1, 3-19 and 22-24 is December 31, 1998 (in view of the certified English translation of the Korean priority document), *the effective filing date for present claim 25 is December 16, 1999* (which is the filing date for the parent application 09/465,111) because there is no support for the generic phrase "two or more *alicyclic olefin derivatives*" in the Korean priority document; in the English translated Korean priority document, there is only support for the specific alicyclic olefin derivatives having the chemical formula 4), whereas in the parent application, there is support for such phrase (see pg.3, lines 20-22).
3. Since Jung et al (GB 2 345 286 A) is published on July 5, 2000, previous 102(b) rejection on claims 1 and 3-21 over Jung et al is hereby withdrawn.
4. Since Lee et al (6,403,281) was issued on an application filed on August 22, 2000, previous 102(e) rejection on claims 1, 3 and 11-19 over Lee et al'281 is hereby withdrawn.
5. In view of the terminal disclaimer filed on November 10, 2005, previous obviousness-type double patenting rejection on claims 1, 3, 11-17 and 19-21 over U.S. Pat. No. 6,403,281 B1 is hereby withdrawn.

### Specification

6. The amendment filed on November 10, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a)

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states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: applicants added "[i]n another embodiment, all of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> do not represent hydrogen at the same time" in the paragraph of pg.4, lines 5-26. Applicants also added "[i]n one embodiment, at least one of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> represent . . . In another embodiment, all of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> do not represent hydrogen at the same time." In the paragraph at pg.5, line 8- pg.6, line 8. There is no support for these newly added subject matter either in the parent application (parent application never presented such embodiment(s) generically) or in the present application (present application originally *required* (instead of presenting as a plausible embodiment) that at least one of R<sub>1</sub>-R<sub>4</sub> is a straight or branched C<sub>1-10</sub> alkyl, ester, ketone, arboxylic group, or acetal group, each including at least one hydroxyl group).

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Sakai (US 6,331,383 B1) (with Mullee (US 6,306,564 B1) which is cited here to support the

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Examiner's position that it is a typical practice in the art to strip or remove photoresist from the top surface of a semiconductor wafer after etching or other semiconductor manufacturing step).

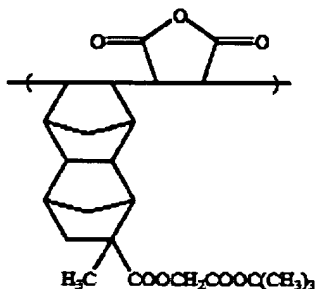
Sakai (*or any other prior arts*), which teaches a semiconductor device manufactured by using a photosensitive composition, teaches present semiconductor element of claim 19 because it is a typical practice in the art to *strip or remove* photoresist from the top surface of a semiconductor wafer after etching or other semiconductor-manufacturing step as evidenced by Mullee, col.1, lines 15-30.

Therefore, it does not make any difference as to what kind of photoresist composition was used to manufacture the semiconductor device. Therefore, the Examiner would like to suggest applicants to cancel claim 19.

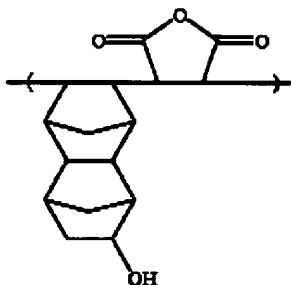
9. Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Kajita et al (6,180,316 B1).

In Synthesis Example 3, Kajita prepares the following copolymer (A-1):

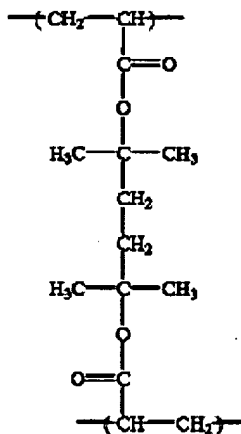
(15-1)



(15-2)



(15-3)



Therefore, Kajita teaches present invention of claim 25.

### ***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

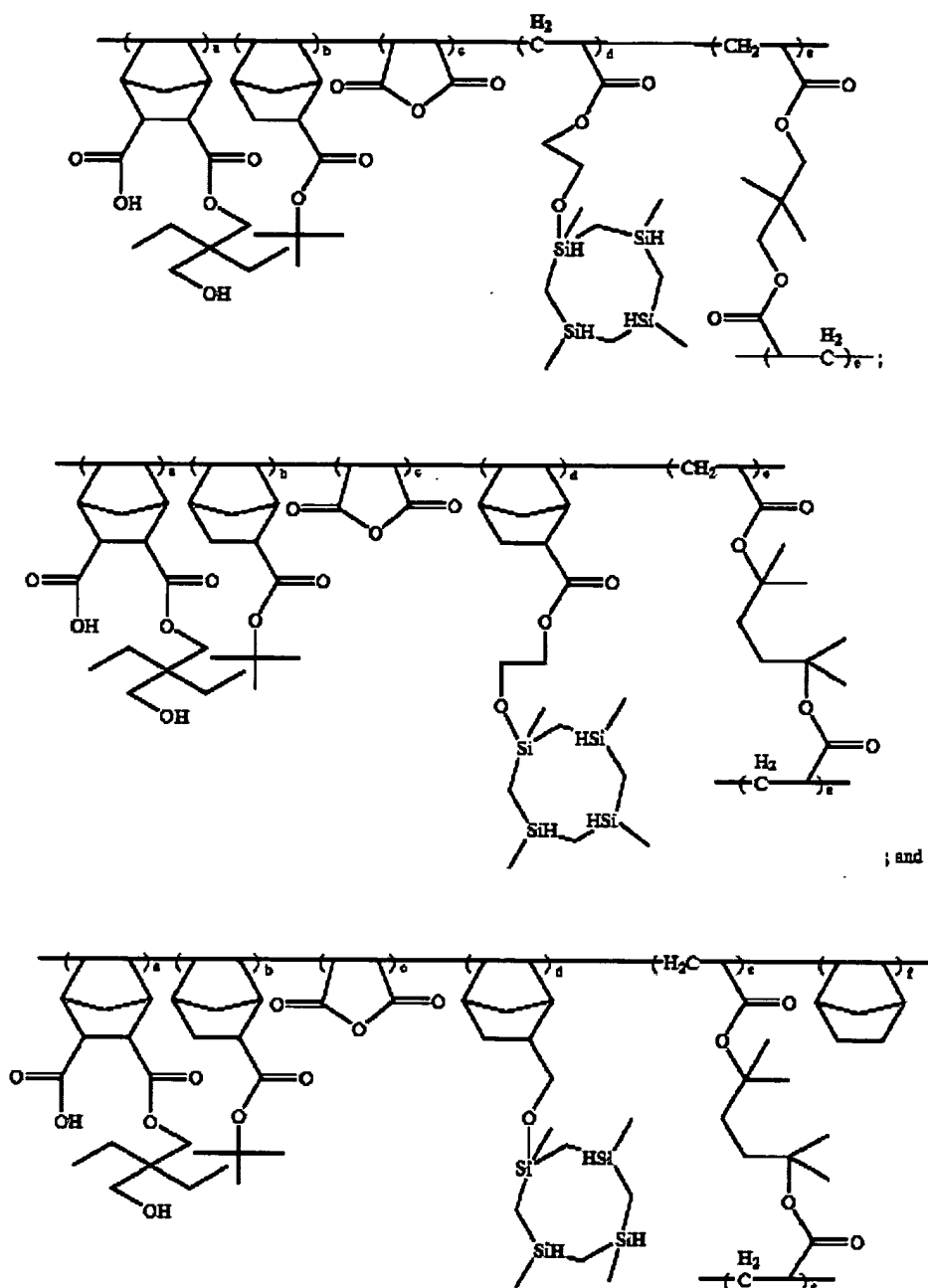
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by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1, 3, 5-13 and 22-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-20 and 22 of U.S. Patent No. 6,589,707 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reason: claim 18 of U.S. Pat. No. '707 teaches the following polymers:



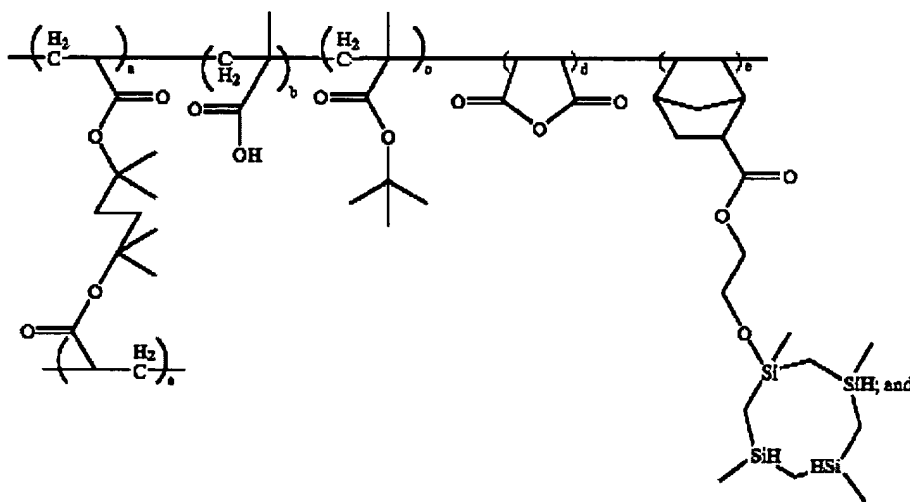
Those polymers teach the present polymer of claims 1, 5 and 25 (present claims 1 and 5 are amended back to using the transitional phrase "*comprising*"). Claims 19, 20 and 22 of U.S. Pat. No.'707 teaches a composition containing the polymer, a photoacid



generator and an organic solvent. Therefore, U.S. Pat. No.'707 renders obvious present inventions of claims 1, 3, 5-13 and 22-25.

## Double Patenting

12. Claims 1, 3, 5-19, and 22-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14, 21, 22, 24, 26, 29-31 and 33 of U.S. Patent No. 6,569,599 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons: Claim 14 of U.S. Pat. No. '599 teaches the following polymer:



This polymer teaches present polymers of claims 1, 5 and 25 (the last repeating unit of the polymer shown above meets present chemical formula 4 in which R<sub>4</sub> is a C<sub>10</sub> ester. The last repeat unit of the polymer also teaches present alicyclic olefin derivative of claim 25). Claims 21, 22, and 24 of U.S. Pat. No.'599 teaches a composition containing the polymer, a photoacid generator and a solvent. Claims 26, 29-31 and 33 of U.S. Pat. No.'599 teaches present photoresist pattern-forming process of claims 14-18 and

present semiconductor element of claim 19. Therefore, U.S. Pat. No.'599 renders obvious present inventions of claims 1, 3, 5-19 and 22-25.

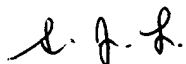
***Allowable Subject Matter***

13. Claim 4 is allowed. None of the cited prior arts teaches or suggests present polymer of claim 4.

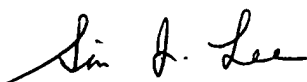
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee  
January 19, 2006

  
**SIN LEE**  
**PRIMARY EXAMINER**